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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/821,693 | 04/10/2004 | Howard Martin | MARTIN-PA-2 | 1152 |

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EXAMINER

DONAHOE, CASEY D

ART UNIT PAPER NUMBER

3732

DATE MAILED: 12/13/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/821,693

Applicant(s)

MARTIN, HOWARD

Examiner

Casey Donahoe

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) 16 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: ____.

DETAILED ACTION

Claim 16 is withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 10/28/2005.

Priority

Applicant's claim for the benefit of a prior-filed application under 35 U.S.C. 119(e) or under 35 U.S.C. 120, 121, or 365(c) is acknowledged. Applicant has not complied with one or more conditions for receiving the benefit of an earlier filing date under 35 U.S.C. [1] as follows: Applicant filed application on 4/10/2004, failing to file within the 12 month copendency of the provisional application filed on 4/8/2003.

Claim Objections

Claims 10 and 13 are objected to because of the following informalities:

Claim 10 is dependent upon itself. Examiner evaluated as if dependent upon claim 9.

Claim 13 is dependent upon claim 1. Examiner believes Applicant meant for it to depend from claim 12, since the preamble matches that of claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 6-8 are rejected under 35 U.S.C. 112, second paragraph, because "further comprises" in claim 6 implies there were additional structural element cited previously in addition to the "open-face groove" and as such there is not one-to-one correspondence between the claim limitations and the disclosed structure. Examiner recommends dropping "further", because the channel is the open faced groove, the open face groove is not an additional element.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 2, 4, 6, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chadwick et al. (WO 01/41668 A1).

Regarding claims 1, 2, and 4, Chadwick et al. disclose a multi-purpose dental tool (Fig. 1), including: a handle formed as an elongate shaft having an operative dental

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mirror first end; a measuring device comprising a channel (48) formed in the shaft, opening to the second end, and dimensioned to accommodate a root canal file (Fig. 2); and measuring lines (44) equally-spaced along the shaft proximate to the channel.

Regarding claim 6, the channel is an open-faced groove extending into the second end of the shaft.

Regarding claim 9, Figs. 6-7 show an embodiment where the channel is an internal cylindrical channel comprising a transparent window (126).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Petty et al. (U.S. 4,252,522).

Chadwick et al. disclose the combination dental mirror and measuring gauge described earlier, but fail to explicitly state the incrementing of its measuring scale. It is well known in the art and a matter of common sense to increment such scales in millimeters and to mark major intervals at some larger increment, such as 5 mm, in order to improve visual approximation. Such is demonstrated by the combination dental mirror and measuring gauge disclosed by Petty et al (Fig. 2). It would have been

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obvious to one of ordinary skill in the art at the time of the invention to increment the scale disclosed by Chadwick et al. in the same manner to optimize the visual indication of the device.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Frider et al. (U.S. 6,932,601).

Chadwick et al. disclose the combination dental mirror (circular) and measuring gauge described earlier, but fail to disclose the specific mirror dimensions. Angled mirrors are well known equivalents to straight mirrors in the art and 22-24 mm describes the diameter of many standard dental mirrors. Frider et al. disclose a circular mirror between 0.85" and 1.15" diameter (22-29 mm) (column 5, lines 51-53) and between 135 and 155 degrees (or 45 and 65 degrees) (column 4, line 13), which include the claimed dimensions of 22-24 mm and 45 degrees. Such dimensions are used by Frider et al. to provide a tool useful to the mouth of a patient. It would have been obvious to one of ordinary skill in the art at the time of the invention to substitute an angled mirror at approximately 45 degrees for the straight mirror disclosed by Chadwick et al. and to construct the mirror between 22 and 24 mm, because such dimensions are standard in the art and provide a tool useful to the mouth of a patient.

Claims 7, 12, 13, and 14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Forrest et al. (U.S. 3,911,587).

Chadwick et al. disclose the combination dental mirror and measuring gauge described earlier, but fail to explicitly state the length of the measuring groove. Forrest et al. disclose a device for setting depth penetration "covering the known range of root canal depths" (abstract) of root canal files, of which the maximum channel length is 30 mm (column 2, line 6). Thus, Forrest et al. establishes that a length of approximately 30 mm should be sufficient to accommodate most standard dental files or reamers, such as the one (50) shown by Chadwick. It would have been obvious to one of ordinary skill in the art at the time of the invention to construct the groove disclosed by Chadwick et al. to a predetermined length of 30 mm to allow for adequate measurement of the known range of root canal depths.

Claims 8 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Johnsen et al. (U.S. 6,036,490) and Vice (U.S. 4,028,810).

Chadwick et al. disclose the combination dental mirror and measuring gauge described earlier, with booth groove and internal cylindrical channel configurations, but fail to explicitly disclose the shape of the groove and dimensions of either the groove or channel. Vice discloses another system for measuring root canal files, in which the diameter of the standard measured file is disclosed to fall between 0.75 and 1.0 mm. Because both devices are used to measure the same type of files it would be obvious to dimension the groove/channel to receive files between 0.75 and 1.0 mm. It would have been obvious to one of ordinary skill in the art at the time of the invention to construct the internal cylindrical channel disclosed by Chadwick et al. with a diameter of

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approximately 1.0 mm to accommodate for standard root canal files. Furthermore, Johnsen et al. disclose a measuring gauge comprising a semi-circular shaped groove, which is an inherent groove shape for receiving files of circular cross section. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to construct the groove disclosed by Chadwick et al. in a semi-circular configuration with a diameter of 1.0 mm and a radius of 0.5 mm.

Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Berk et al. (U.S. 6,595,775).

Chadwick et al. disclose the combination dental mirror and measuring gauge described earlier, but fail to disclose the materials of construction. It is well known in the art to form dental mirrors from stainless steel or plastic, as demonstrated by Berk et al. (column 4, lines 38-40), because they are resistant to corrosion and can be sterilized. It would have been obvious to one of ordinary skill at the time of the invention to form the device disclosed by Chadwick et al of either plastic or stainless steel, as taught by Berk et al. in order to provide a tool that can be easily sterilized.

Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chadwick et al. in view of Vice as applied to claims 8 and 10 above, and further in view of Forrest et al.

Chadwick et al. disclose the combination dental mirror and measuring gauge described earlier and Vice discloses the standard dimensions of a root canal file, which

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reason a groove to be 1.0 mm wide and at least 0.5 mm deep. However, the combination fails to disclose the length of the measuring channel. Forrest et al., as described earlier, discloses an optimal 30 mm depth to allow for known root canal depths to be measured. It would have been obvious to one of ordinary skill in the art at the time of the invention to construct the length of the channel disclosed by Chadwick et al. to be 30 mm to accommodate for most standard dental files.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

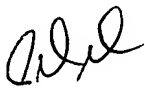
Kravitz (U.S. 4,976,615), Schaffner (U.S. 4,212,639), Loran (U.S. 3,388,473), Buchanan (U.S. 4,708,651), Zdarsky (U.S. 3,964,170), and Malmin (U.S. 3,855,705) are made of record.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Donahoe whose telephone number is (571) 272-2812. The examiner can normally be reached on Monday - Thursday (7:30 - 5:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kevin Shaver can be reached on (571) 272 -4720. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


12/12/05

Casey Donahoe
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Art Unit 3732


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